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<110> SCHWINN, DEBRA A.

<120> ADRENERGIC RECEPTORS

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<141> 2003-11-19

<150> US 60/427,219
<151> 2002-11-19

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<170> PatentIn Ver. 3.2

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cagcagctgt tggtcactga gagccagtgc aaccctaccc actgggcctg ctcctgtaat 240

taatgacaca cgcggaccaa gtaggaatgg tctttgaaga tattgcaaaa gggtgacagt 300

cataggagct agtcagtcaa atgtgagaaa ctcatatgtg tttgggatca ttttaaccgt 360

ttaaaaatac agaaagatgt ctgtttgatt gttttcctag ccaattggct tgctggcttt 420

caaataatat gtataaatct gtgtgttttc ttcca ggg tct ttc ttc cct gat   473
                                        Gly Ser Phe Phe Pro Asp
                                         1   5

ttc aag ccc tct gaa aca gtt ttt aaa ata gta ttt tgg ctc gga tat   521
Phe Lys Pro Ser Glu Thr Val Phe Lys Ile Val Phe Trp Leu Gly Tyr
             10   15   20

cta aac agc tgc atc aac ccc atc ata tac cca tgc tcc agc caa gag   569
Leu Asn Ser Cys Ile Asn Pro Ile Ile Tyr Pro Cys Ser Ser Gln Glu
         25   30   35

ttc aaa aag gcc ttt cag aat gtc ttg aga atc cag tgt ctc cgc aga   617
Phe Lys Lys Ala Phe Gln Asn Val Leu Arg Ile Gln Cys Leu Arg Arg
     40   45   50

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aag cag tct tcc aaa cat gcc ctg ggc tac acc ctg cac ccg ccc agc    665
Lys Gln Ser Ser Lys His Ala Leu Gly Tyr Thr Leu His Pro Pro Ser
 55                      60                  65                  70

cag gcc gtg gaa ggg caa cac aag gac atg gtg cgc atc ccc gtg gga    713
Gln Ala Val Glu Gly Gln His Lys Asp Met Val Arg Ile Pro Val Gly
                    75                  80                  85

tca aga gag acc ttc tac agg atc tcc aag acg gat ggc gtt tgt gaa    761
Ser Arg Glu Thr Phe Tyr Arg Ile Ser Lys Thr Asp Gly Val Cys Glu
                90                  95                 100

tgg aaa ttt ttc tct tcc atg ccc cgt gga tct gcc agg att aca gtg    809
Trp Lys Phe Phe Ser Ser Met Pro Arg Gly Ser Ala Arg Ile Thr Val
            105                 110                 115

tcc aaa gac caa tcc tcc tgt acc aca gcc cgg gtg aga agt aaa agc    857
Ser Lys Asp Gln Ser Ser Cys Thr Thr Ala Arg Val Arg Ser Lys Ser
        120                 125                 130

ttt ttg cag gtc tgc tgc tgt gta ggg ccc tca acc ccc agc ctt gac    905
Phe Leu Gln Val Cys Cys Cys Val Gly Pro Ser Thr Pro Ser Leu Asp
135                 140                 145                 150

aag aac cat caa gtt cca acc att aag gtc cac acc atc tcc ctc agt    953
Lys Asn His Gln Val Pro Thr Ile Lys Val His Thr Ile Ser Leu Ser
                155                 160                 165

gag aac ggg gag gaa gtc taggacagga aagatgcaga ggaaagggga          1001
Glu Asn Gly Glu Glu Val
                170

ataatcttag gtacccaccc cacttccttc tcggaaggcc agctcttctt ggaggacaag 1061

acaggaccaa tcaaagaggg gacctgctgg gaatggggtg ggtggtagac ccaactcatc 1121

aggcagcggg tagggcacag ggaagaggga gggtgtctca caaccaacca gttcagaatg 1181

atacggaaca gcatttccct gcagctaatg ctttcttggt cactctgtgc ccacttcaac 1241

gaaaaccacc atgggaaaca gaatttcatg cacaatccaa aagactataa atataggatt 1301

atgatttcat catgaatatt ttgagcacac actctaagtt tggagctatt tcttgatgga 1361

agtgagggga ttttattttc aggctgttca cttactgcac agccatttca acatggctta 1421

caaaagcctt tcttgacaaa tcacttacct gttccagaac tctgttatga gaatccagag 1481

cttataatat tttgnnaggc aaaagattgt ctcccattac ttcttatctg cttcactatt 1541

gcataatgaa tgagcttcac ctgtggcatg ttggaatgag ccttatgatc caagtacatt 1601

attcccgaac tttgnaaaat actaatgctt agcttcagac aatactgatg gntcnccaaa 1661

gnactgtcta acgcaggagt ttncnaacat tttttgatag gaggccattt gttctggtaa 1721

aagatccagt agtcaactca acttcatcta ttcctacttt tctgcaagag cttggggnac 1781
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atgctatatt ttgctttatg tataccnaat tttggtaaac cataataact cagtaaaaaa 1841

aaagtcgacg cggccgcgaa ttcgatatca agcttatcga taccgtcgac ctcgagggg 1901

ggcccggtac ccaa   1915

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<213> Homo sapiens

<400> 40

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Gly Ser Phe Phe Pro Asp Phe Lys Pro Ser Glu Thr Val Phe Lys Ile
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Val Phe Trp Leu Gly Tyr Leu Asn Ser Cys Ile Asn Pro Ile Ile Tyr
              20                  25                  30

Pro Cys Ser Ser Gln Glu Phe Lys Lys Ala Phe Gln Asn Val Leu Arg
          35                  40                  45

Ile Gln Cys Leu Arg Arg Lys Gln Ser Ser Lys His Ala Leu Gly Tyr
      50                  55                  60

Thr Leu His Pro Pro Ser Gln Ala Val Glu Gly Gln His Lys Asp Met
 65                  70                  75                  80

Val Arg Ile Pro Val Gly Ser Arg Glu Thr Phe Tyr Arg Ile Ser Lys
                  85                  90                  95

Thr Asp Gly Val Cys Glu Trp Lys Phe Phe Ser Ser Met Pro Arg Gly
              100                 105                 110

Ser Ala Arg Ile Thr Val Ser Lys Asp Gln Ser Ser Cys Thr Thr Ala
          115                 120                 125

Arg Val Arg Ser Lys Ser Phe Leu Gln Val Cys Cys Cys Val Gly Pro
      130                 135                 140

Ser Thr Pro Ser Leu Asp Lys Asn His Gln Val Pro Thr Ile Lys Val
145                 150                 155                 160

His Thr Ile Ser Leu Ser Glu Asn Gly Glu Glu Val
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<212> DNA
<213> Homo sapiens

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cttgtacccc tattttaaca ganaaaaaat ctgatcattg tanggagntt aaggacttgc 180

ccaaggccaa ggggacccat gatttaaacc tggtctccct attctcaacn tgcacatttt 240

ccatagcccc cccttcctca agagaatggg ggtaaacgtt ttcccatttg gattaggtgt 300
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gctgaggatg ccaagccata tccaaacttt ttaatgttct gtttccttga gatttgcctc 360

caaattaacc atggcaaaca tgctgccaaa tctccagccc agtcaaaccc aagagcaggg 420

catctgtgga agaatttggt gtctgcactt ctatcagact gcatcacatt tttaggagtt 480

aatggcctgg aatgtgatta aggccttgca aggaggacat actatggcac gctgggggaa 540

gatgggcata gaagagtatg cagaaggggc cacattggcc aagaacagta aaatgcagtt 600

gctgacagga cacatatcgg gtgttgtatt gaagttattg atgaccaacc acagttcata 660

gaaacacttt tgggaagtac atcccttta aaaataaatg aaagcaaata cggcataact 720

cactctcact cacctgtatt ccaacttttt ttttgtttgg acag agg gga atg gat   776
                                                  Arg Gly Met Asp
                                                   1

tgt aga tat ttc acc aag aat tgc aga gag cat atc aag cat gtg aat   824
Cys Arg Tyr Phe Thr Lys Asn Cys Arg Glu His Ile Lys His Val Asn
 5                   10                  15                  20

ttt atg atg cca ccg tgg aga aag ggt tca gaa tgc tgatctccag         870
Phe Met Met Pro Pro Trp Arg Lys Gly Ser Glu Cys
            25                  30

gtagctggag acctaggcag tctgcaaatg aggagtcagc tggaagctat ggctatgtat 930

tatgtgacat cgcttgttcc taatttcttt tcacacaagt gaaaactgga tatcccaacc 990

ttctggccca gtaggtttca tggttaagac ctggtagtga aacatttta ggaactattt 1050

gcttgggcag gtaatttttc actctgatca cagctactta atcagagctt gacaaacttt 1110

ctcaattgct tctggggctg gtctgctcag gtcctttggc caaaaaagat gctgcctctg 1170

tgtgtgaata cttgttgact taattaaaga aagagctctg ctcattagca aagggcactg 1230

nngcagatgg gaggtaaact ctccagggaa aaaccaagtg aaaagaaagc agaggaggca 1290

aatatggaga catcagaggt atgcctacca gttactctga tttttttaca ctactaggac 1350

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acctgccccg tatctgcaga ctgtcctggg gagctgggct gagccaggct gctgtggtgc 1470

catccatctt cagaaagcaa tggcagctgt ggccctcctg gcctccanaa cccctgggga 1530

gcaagnatga gtgggagatn atcactggtg ggggctnagg ctgacnaaaa gcaagtttag 1590

gaatttcaat nggggggggac aacaagccct ngcncccatc nagcaattag gtcaattcac 1650

gccnccccaa gacccaaatn tgggnggagg gggttnnaga ntttggccct tc           1702
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<212> PRT
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Arg Gly Met Asp Cys Arg Tyr Phe Thr Lys Asn Cys Arg Glu His Ile
 1               5                  10                  15

Lys His Val Asn Phe Met Met Pro Pro Trp Arg Lys Gly Ser Glu Cys
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tgattggaag cagaagttgg gggggggggg aaattggaag caaaagggac cgaacttgaa   120

gcntgtactn cccagacttc tcattggaag ctccaggtca caatcttagt nctaatttca   180

ggttcctgcc cagtcgagtc tagacattnc tggggcaccc tttaagtggt ctccagcacc   240

cttctaggca ggtggcttca cagggaagtc cacactgcaa gctcagctca ccacgactca   300

ggctgacggg gtagtcagcc atgctcggag gctgaatttg gcagggactt gctgccatct   360

ccctgccaaa tggtctctcg tgactcagaa tctcaaactt gttttaaaga gaggaaaaaa   420

gtcactttcg gggatgaggt tcttggccca actctgcttt atataaacac agtctatggc   480

tatttcagtc ttctggattt tgagaagcag ctgcaaggat gaacggattg gtgttggccc   540

aaattaaaaa gaagagtatt cagttctttc agtgtttgga gaaagaagac caaaagcatc   600

atctcacagg gagcagaatg tgaccagcct ggctaatgag gaaatgagag ggatcctcaa   660

cttgagaacc cgctctactg aagtctgaac ttggaaaaat ggacacattg ggtttggagt   720

aagaattctt actctacaaa aggataaaat tgtgatcaca ttgatgcatg atgcctagga   780

tattaaaaat gcatgattaa ttaaatgtta gtctaccttg tgttttaaag gga cac      836
                                                          Gly His
                                                            1

aca ccc atg aca tgaagccagc ttcccgtcca cgactgttgt ccttactgcc         888
Thr Pro Met Thr
          5

caaggaaggg gagcatgaaa cccaccactg gtcctgcgac ccactgtctt tggaatccac   948
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cccaggagcc caggagcctt gcctgacact tggatttact tctttatcaa gcatccatct 1008

gactaaggca caaatccaac atgttactgt tactgataca ggaaaaacag taacttaagg 1068

aatgatcatg aatgcaaagg gaaagaggaa aagagccttc agggacaaat agctcgattt 1128

tttgtaaatc agtttcatac aacctccctc ccccatttca ttcttaaaag ttaattgaga 1188

atcatcagcc acgtgtaggg tgtgag                                       1214
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<212> PRT
<213> Homo sapiens

<400> 44
Gly His Thr Pro Met Thr
  1               5
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